1. Congratulations!

By purchasing the **seca 684** multifunctional scales you have acquired a highly accurate and sturdy piece of equipment.

seca has been putting its experience at the service of health for over 150 years now, and as market leader in many countries of the world, is always setting new standards with its innovative developments for weighing and measuring.

In accordance with national regulations, the **seca 684** multifunctional scales is used primarily in hospitals, doctors' surgeries and in-patient nursing facilities.

The folding seat integrated into the robust handrail makes the seca 684 suitable not only for weighing patients seated in a wheelchair but also for weighing people who easily lose their balance.

The **seca 684** is designed to measure weight conventionally but can also determine body mass index. A membrane keyboard allows body size to be entered for obtaining the body mass index that corresponds with weight.

You can use the pre-Tare function to record the weights of, e.g. three types of wheelchairs. This weight is automatically deducted in the weighing operation.

The scale is of a very sturdy construction and will give you long and loyal service. It is easy to operate and the large display is easy to read.

The **seca 684** can be moved on castors.

2. Safety

Before using the new scale, please take a little time to read the following safety instructions.

- Follow the safety instructions in the instruction manual.
- Keep the operating manual and the declaration of conformity contained therein in a safe place.
- Do not drop the scale or subject it to violent shocks.
- After transporting the scales, place the scales carefully back in the position for use.
- Be sure to use only the seca mains unit supplied. Before plugging the mains unit into a socket, check that the mains voltage indicated on the mains unit matches local mains voltage.
- When using the scale with a mains unit, ensure that the supply cable is routed in such a way as to exclude any type of tripping hazard.
- Have scale serviced on a regular basis (see “Servicing” on page 36).
- Have repairs carried out exclusively by authorised persons.

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3. Before you start…

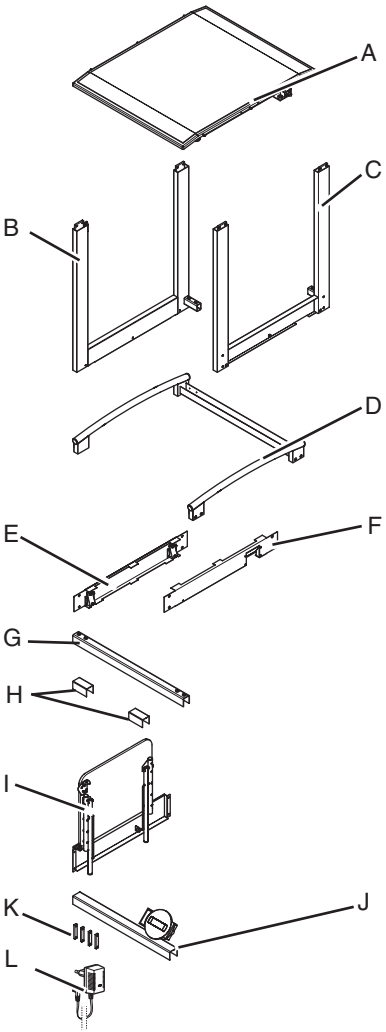
Unpacking

Remove the packing material and place the weighing platform onto a solid, flat surface.

Equipment supplied

The equipment supplied includes:

- 1 weighing platform (A)
- 1 side element left (B)
- 1 side element right (C)
- 1 handrail (D)
- 1 cover left (E)
- 1 cover right (F)
- 1 bottom transverse bar (G)
- 2 covers (H)
- 1 foldable seat (I)
- Display head with support (J)
- 4 threaded anchor plates (K)
- 1 seca power supply unit (L)
- Operating instructions with a declaration of conformity



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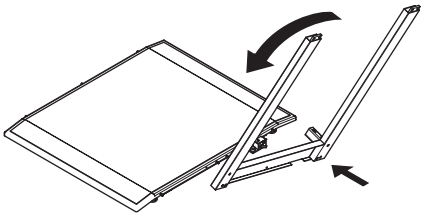
Bolts and tools

The following small parts and tools are included in the supplied equipment:

- 16 galvanized M6 x 12 countersunk bolts
- 8 black covers for M6 countersunk bolts
- 6 galvanized M6 hexagon nuts
- 6 galvanized J 6.4 crown gears
- 4 galvanized M8 x 20 oval head screws
- 4 galvanized 8.4 washers
- 8 white covers for M6 countersunk bolts
- 4 galvanized B 3.5 x 9.5 pan-head tapping screws
- 4 galvanized 6.4 washers
- 4 galvanized M6 x 20 oval head screws
- 1 SW4 hexagon wrench
- 1 SW5 hexagon wrench
- 1 size 1 Philips-head screwdriver
- 1 SW 8/10 socket wrench
- 1 SW 10 combination wrench

Assembling the scales

1. Unscrew the three nuts from the bolt on the sides of the weighing platform.
2. Place the right element on the rear bolt of the weighing platform.
3. Swing the side element back behind the level support.
4. Place the side element onto the middle and front bolt of the weighing platform.
5. Place the crown gear and nut onto the middle bolt and tighten it firmly by hand.



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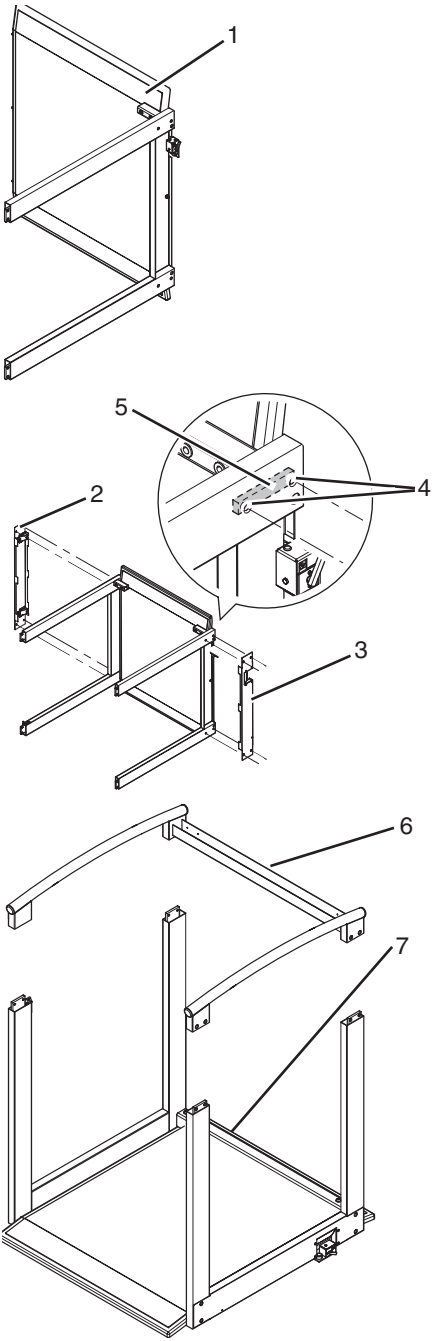
6. Tip the scales forward and place it onto the side piece (1).
7. Assemble the rear and front nut together with the crown gear.
8. Tighten the three nuts using the supplied socket wrench and combination wrench. Use the supplied screwdriver as a toggle in the combination wrench.
9. Place the scales back onto the weighing platform.
10. Assemble the side piece accordingly. Tip the scales over after tightening the middle nut.
11. Remove the adapter between the six bolt heads and the frame weighing platform on both sides.
12. Fasten the left (2) and right (3) side piece covers. At each corner, fit two countersunk bolts (4) M6 x 12 and fit the threaded anchor plate (5).
13. Place the scales back onto the weighing platform.
14. Place the handrail (6) onto the two side elements.
15. Use the countersunk bolts M6 x 12 to fasten the handrail into place.
16. Fasten the bottom transverse bar (7) with the M8 x 20 oval head screws and plain washers.



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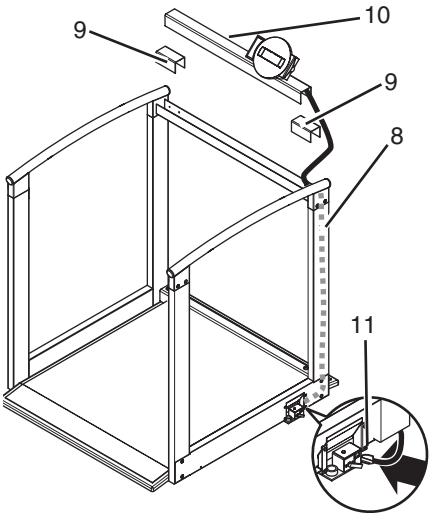
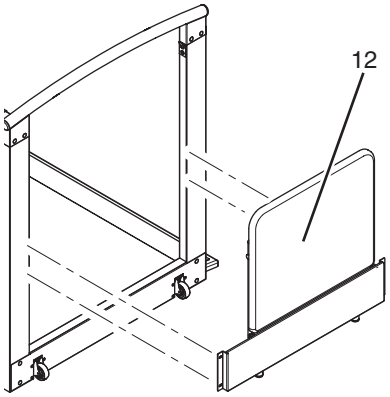
17. Pass the connector cable for the display downward, from the top right through the right rear side post (8).
18. Place the covers (9) on the left and right end of the transverse bar.
19. Initially fasten the covers on the two outer holes using the M3.5 x 9.5 pan-head tapping screws.
20. Place the support and display (10) onto the upper transverse bar. Next, fit the bolts on the inner holes of the covers.
21. Connect the connector cable to the electronics box (11).
22. Screw-tighten the folding seat (12) from the rear onto the left side piece using the M6 x 20 oval head screws and plain washers.
23. Place the appropriate covers on the countersunk bolt heads.





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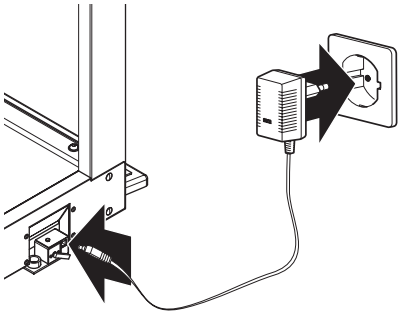
Power supply

The scale is powered by a mains unit.

You must check before connecting the equipment whether the AC voltage given on the mains unit matches the local mains voltage given on your electricity meter.



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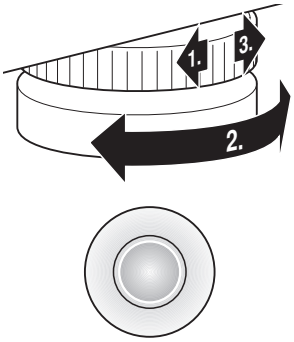
4. Setting up and aligning the scale

– Place the scale on a level surface.
– Undo the locknuts using the four foot screws (1).
– Align the scale by undoing the foot screws. The air bubble in the spirit level must be right in the centre of the circle (2).
– Then re-tighten the locknuts (3).
– Ensure that only the feet of the scale are in contact with the floor. The scale may not be in contact at any other point.

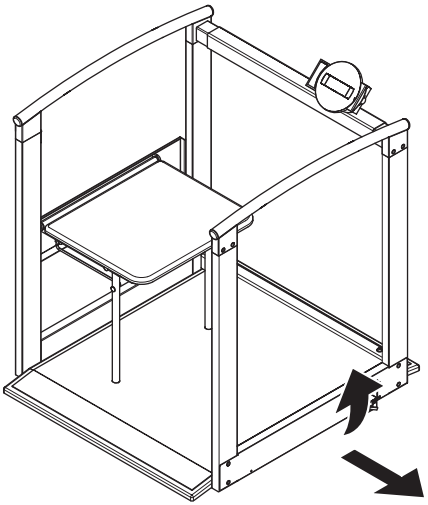


Important!
The alignment of the base of the scale must be checked and corrected if necessary every time the location of the scale is changed.

Moving the scales

To move the scales to a different location,

1. Take hold of the left side element and tip the scales carefully over until the scales are on the castors.
2. With the scales in this position, push to the desired location.



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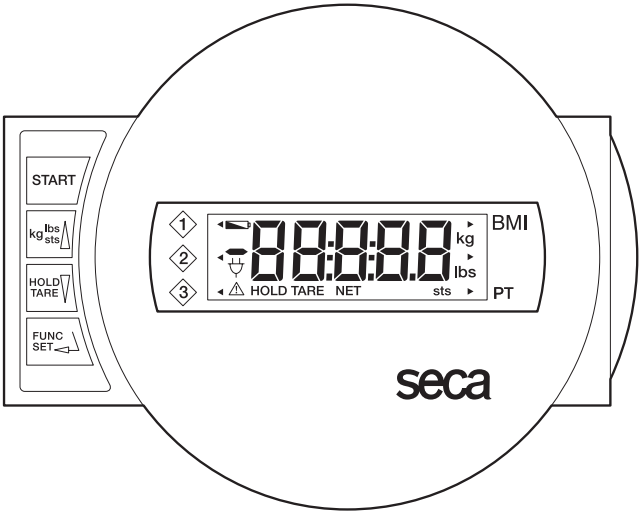
5. Operation

Controls and displays

The controls and display are in the display part.



START — Switch scale on and off

kg lbs sts
- press briefly → switch between kg and lbs
- hold down → switch between kg and sts
- in function menu → increase value, scroll

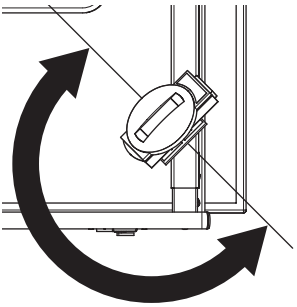
HOLD TARE
- press briefly → activate hold function
- hold down → set display to zero, activate/deactivate tare function
- in function menu → decrease value, scroll

FUNC SET — Menu selection, confirmation, setting up parameters

1 2 3 — Memories

Turning the display

The display for the scales is mounted facing the chair. The display can be turned 180° so that either the patient or health care personnel can view or operate the display. Turn the display anticlockwise until it is in the desired position.



Correct weighing

- Press the **START** key.
  SECA, 8.8.8.8.8. and 0.0 appear consecutively in the display. The scale is then automatically set to zero and ready to use.
- If necessary, switch the weight display (see page 28).
- Stand on the scale and keep still.
- Read the weighing result off the digital display.
- If a load greater than 300 kg or 660 lbs is placed on the scale, StOP appears in the display.
- To switch off the scale, press the **START** key again.

Switching the weight display

The weight display can be switched between kilogrammes (kg) and pounds (lbs) or between kilogrammes (kg) and stones (sts).

- Switch on the scale using the green **START** key. Weight is initially displayed in the last setting selected.
- To switch the weight display between kilogrammes and pounds, press the **kg/lbs/sts** key.
- The **kg** or **lbs** display lights up.

- To switch weight display between pounds and stones, hold down the **kg/lbs/sts** key for approx. 2 seconds. The **lbs** or **sts** display lights up.

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Switching off the scale

– To switch off the scale, press the **START** key again.

Taring weight display (TARE)

The Tare function is very useful if an additional weight, e.g. that of a wheelchair, is to be ignored for weighing purposes.

Proceed as follows:

– Press the green **START** key.

– First place the additional weight (e.g. the wheelchair) on the scale and activate the Tare function by pressing and holding the **HOLD/TARE** key.

The display is reset to zero, 0.0 flashes in the display until weight is detected to be stable. Only then is the Tare function fully activated. The note “NET” appears.

– Now move the patient and the wheelchair previously weighed onto the scale.

The scale determines the patient’s weight.

You can now perform as many weighing operations as you like.

– Hold the key down again to deactivate the Tare function; the scale is then back in normal weighing mode and the tare value has been erased.

– The tare value is likewise erased by the scale being switched off.

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Store weight value (HOLD)

You can also continue displaying the weight determined once the load has been removed. This makes it possible to look after a patient first, before having to note the weight:

– Press the **HOLD/TARE** key whilst the load is on the scale.

"HOLD" appears in the digital display. The value is stored until the HOLD function switches off automatically.

– The HOLD function can be switched off by pressing the **HOLD** key again.

0.0 appears in the display if the scale has no load on it, otherwise the current weight. The "HOLD" display vanishes.

Note:
The HOLD and TARE functions can also be used simultaneously.

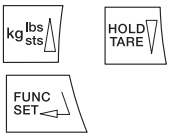
Body Mass Index (BMI)

Body Mass Index puts height and weight in relationship to one another, providing more accurate information than ideal Broca weight, for example. A tolerance range is given which is considered ideal for health. The Body Mass Index applies only to adults: these values are not relevant to children and young people.

– Press the **START** key.
SECA, 8.8.8.8.8. and 0.0 appear consecutively in the display. The scale is then automatically set to zero and ready for operation.

– Press the **FUNC** key.
The last function used appears in the display.

– Use the arrow keys to select the BMI function, **FU 1**.
Activate the function by pressing the **FUNC** key again.



An arrow on the left-hand side of the display indicates which memory is set.

– Use the arrow keys to select the memory position under which you wish to record – or under which you have already recorded – the patient's height.

– Press the **FUNC** key again. The patient's recorded height will then appear on the display.

– You can use the arrow keys to adjust the value in increments according to the graduations displayed.

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– Once the correct value is set, press the **FUNC** key again. The BMI function is now activated.
– Ask the patient to mount the scale. Once on the scale, the patient should stand still.
– Read off the BMI on the digital display and compare it with the categories on page 31.
– To return to normal weighing mode, press the **FUNC** key.
– To switch off the scale, press the **START** key again.

Evaluating Body Mass Index:

Compare the value determined with the categories quoted below which correspond to those used by WHO, 2000.

- **BMI below 18.5:**

  Warning, this patient weighs too little. There could be a tendency to anorexia. An increase in weight is recommended to improve well-being and performance. If in doubt, consult a specialist.
- **BMI between 18.5 and 24.9:**

  The patient is of a normal weight. He can stay as he his.
- **BMI between 25 and 30 (pre-obese):**

  The patient is slightly to moderately overweight. He should cut his weight if he is already ill (e.g. diabetes, hypertension, gout, fat metabolism disorders).
- **BMI over 30:**

  Weight reduction is essential. Metabolism, cardiovascular system and bones are all under strain. A consistent diet, plenty of movement and behavioural training are all recommended. If in doubt, consult a specialist.

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Weighing with pre-Tare

If the pre-Tare function is activated, a stored weight value is deducted from the currently measured weight. This function is useful, for example, if the weight of a wheelchair is not to be displayed.

Three different tare weights (wheelchair weights) can be stored..

– Press the **START** key.
  SECA, 8.8.8.8.8. and 0.0 appear consecutively in the display. The scale is then automatically set to zero and ready for operation.

– Press the **FUNC** key**.**

  The last memory used appears in the display.
  An arrow on the left-hand side of the display also indicates which memory is set.

– Use the arrow keys to select the desired memory for storing the additional weight or where a weight may already be stored.

– Press the **FUNC** key again**.** In the display you will see the tare value from the memory.

– You can use the arrow keys to adjust the value in increments according to the graduations displayed.
– Once the correct value is set, press the **FUNC** key again. The pre-Tare function is now activated.

– Move onto the scale in the wheelchair associated with that memory. Read the weighing result off the digital display.
– To return to normal weighing mode, press the **FUNC** key**.**

– To switch off the scale, press the **START** key again.

Tip: note weight and the memory in which the weight is stored on your wheelchairs.

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Setting damping

Damping is useful for reducing weight determination malfunctions (due to patient movements, for example). The stronger the damping, the more slowly the weight display reacts. You can set damping to suit requirements.

– Press the **FUNC** key and keep it depressed for 2 seconds.

FIL and the current setting appear in the display:
0 = slight damping
⇒ fast determination of weight
1 = average damping
⇒ normal determination of weight
2 = strong damping
⇒ slow determination of weight

– Press an arrow key if you want to change the set value.

– Press the **FUNC** key again to store the displayed value. The scale is then back in normal weighing mode.

The settings are retained even once the scale is switched off.

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Folding the seat up or down

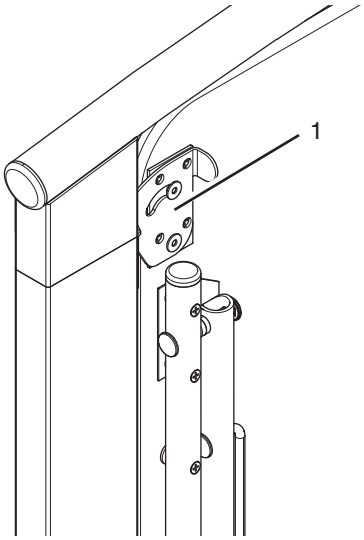
To lower the folding seat:

1. Hold the folding seat firmly with one hand.
2. Unfasten the bolt (1) to the left, above the folding seat by turning it clockwise.
3. Lower the seat.

Caution!
There is danger of injury if the bolt sticks out. Push the bolt beneath the seat so it does not extend out.

To raise the folding seat:

1. Lift the folding seat up.
2. Fasten the folding seat by turning the bolt clockwise.



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6. Cleaning

Clean the surface and the housing as required using a domestic cleaning agent or commercially-available disinfectant. Follow the manufacturer's instructions.
Under no circumstances use abrasive or acid cleaners, white spirit, benzene or the like for cleaning. Such substances can damage the high-quality surfaces.

7. What do I do if…

… no weight display comes on?
– Is the scale switched on?
– Is the plug contact of the mains unit properly connected to the scale?
– Is the plug contact for connecting the display to the scale correctly connected?

… 0.0 does not appear before weighing?
– Press the Start key again – there must not be any load on the scale – and only its feet should be in contact with the floor.

… one segment is illuminated constantly or not at all?
– The relevant segment has a fault. Inform Servicing.

… StOP appears in the display?
– Maximum load has been exceeded.

… the display flashes?
– If you have just activated the Hold or Tare function, please wait until the scale has detected a steady weight value. The display will then stop flashing.
– If there has been no activation of a function beforehand, remove the load from the scale and wait until 0.0 is displayed, then weigh again.

… the display tEMP appears?
– The ambient temperature of the scale is too high or too low. Place the scale in an ambient temperature between +10 °C and +40 °C. Wait about 15 minutes for the scale to adapt to the ambient temperature and then weigh again.

… the display E and a number appear?
– Switch off the scale with the Start key and start the scale again. The scale will then work normally again.
If this is not the case, disconnect the power supply by briefly removing the mains unit. If this measure is equally unsuccessful, inform the Service department.

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8. Servicing

Your seca scale leaves the factory with an accuracy greater than ± 0,15 %. To ensure that this accuracy is maintained, the product must be carefully set up and regularly maintained. Depending on the frequency of use, we recommend servicing every 3 to 5 years. Please ensure that a qualified service agent is used. If in doubt, contact seca Customer Service for further information.

9. Technical data

Dimensions scale	
width:	910 mm / 35.8 ins
height:	1100^{+10} mm / $43.3^{+0.4}$ ins
depth:	965 mm / 38 ins
Dimensions weighing platform	
width:	800 mm / 31.5 ins
height:	46^{+10} mm / $1.8^{+0.4}$ ins
depth:	850 mm / 33.5 ins
Height of figures	20 mm
Weight	approx. 59 kg
Temperature range	+10 °C to +40 °C
EN 60 601-1:	
Insulated equipment, Protection Class II:	⧈
medical electrical equipment type B:	
Colour	white/black
Maximum load	300 kg / 660 lbs / 48 sts
Maximum load for folding seat	150 kg / 330 lbs / 24 sts
Graduations	100 g / 0.2 lbs
Accuracy	greater than ±0,15 % / ±100 g
Power supply	mains unit

10. Spare parts and accessories

Access ramp	seca no.: 470-00-00-009
RS232 adapter kit with print port	seca no.:460-00-00-009
Model dependent mains unit	
Description: plug-in mains unit, Euro: 12 V / 130 mA	seca no.: 68-32-10-252
Description: plug-in mains unit, USA: 12 V / 150 mA	seca no.: 68-32-10-259
Description: desk-top mains unit, switchable, Euro	seca no.: 68- 32-10-243

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11. Disposal

Disposing of the scale

If the scale can no longer be used, the responsible waste disposal association will be glad to advise you on the measures necessary to dispose of it properly.

12. Warranty

A two-year warranty from date of delivery applies to defects attributable to poor materials or workmanship. All moveable parts - batteries, cables, mains units, rechargeable batteries etc. - are excluded. Defects which come under warranty will be made good for the customer at no charge on production of the receipt. No further claims can be entertained. The costs of transport in both directions will be borne by the customer should the equipment be located anywhere other than the customer's premises. In the event of transport damage, claims under warranty can be honoured only if the complete original packaging was used for any transport and the scale secured and attached in that packaging just as it was when originally packed. All the packaging should therefore be retained.

A claim under warranty will not be honoured if the equipment is opened by persons not expressly authorised by seca to do so.

We would ask our customers abroad to contact their local sales agent in the event of a warranty matter.

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CE Konformitätserklärung

Nichtselbsttätige Personenwaage Modell seca 684

Hiermit wird für das vorstehend bezeichnete Erzeugnis bestätigt, dass es den wesentlichen Schutzanforderungen entspricht, die in der Richtlinie des Rates zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten über die elektromagnetische Verträglichkeit (89/336/EWG) festgelegt sind.

Sollte es trotzdem bei der Benutzung der Waage in der Nähe von starken elektromagnetischen Strahlen wie zum Beispiel Mikrowellengeräten, mobilen Telefonen, Handsprechfunkgeräten usw. zu vorübergehenden Störungen bzw. Fehlwägungen kommen, entfernen Sie bitte die Waage von der Störquelle oder schalten Sie die Störquelle aus und wiederholen Sie die Wägung.

CE Declaration of conformity

Non-automatic personal scale, model: seca 684

We hereby certify that the above designated product meets the basic safety requirements laid down in the Directive of the Council pertaining to the harmonisation of the legal provisions of the member states in respect of electromagnetic compatibility (89/336/EEC).

If temporary interference and/or inaccurate weighing should nevertheless occur when the scale is used in the vicinity of intensive electromagnetic radiation sources such as microwave appliances, mobile telephones, walkie-talkies and the like, please move the scale away from the interference source or switch off the interference source and repeat the weighing operation.

CE Déclaration de conformité

Pèse-personnes non automatique, Modèle seca 684

Par la présente, il est confirmé que l'appareil décrit ci-dessus répond aux exigences de protection essentielles fixées dans la directive du Conseil pour l'harmonisation de la législation des Etats membres en matière de compatibilité électromagnétique (89/338/CEE).

Si toutefois, lors de l'utilisation du pèse-personne à proximité de sources de rayonnement électromagnétique telles que des fours micro-ondes, des téléphones mobiles, des walkies-talkies, etc., des perturbations provisoires ou des erreurs de pesage apparaissaient, veuillez éloigner le pèse-personne de la source de perturbations ou déconnectez celle-ci et répétez l'opération de pesage.

Declaración de conformidad CE

Bilancia pesapersone non automatica modello seca 684

Per il prodotto sopracitato con la presente si dichiara, che esso è ronforme ai requisiti essenziali di protezione stabiliti nella direttiva sulla compatibilità elettromagnetica (89/336/CEE) del Consiglio per l'armonizzazione delle norme di legge degli Stati membri.

Se, ciò nonostante, quando si utilizza la bilancia nelle vicinanze di forti emettitori di radiazioni elettromagnetiche, come, ad esempio, apparecchi a microonde, telefoni cellulari, radiotelefoni ecc., si dovessero verificare dei disturbi passeggeri o, rispettivamente, errori nella pesatura, allontanate per favore la bilancia dalla sorgente dei disturbi oppure spegnete quest'ultima e ripetete la pesatura.

CE Overensstemmelsesattest

Ikke-automatiske personvægt model seca 684

Hermed bekræftes for det ovenstående produkt, at det opfylder de væsentlige beskyttelseskrav, som er fastlagt i Rådets direktiv om tilpasning af medlemslandenes retsforskrifter vedrørende elektromagnetisk kompatibilitet (89/336/EØF).

Skulle der alligevel ved brugen af vægten i nærheden af stærke elektromagnetiske stråler, for eksempel mikrobølgeapparater, mobile telefoner, walkie-talkier osv., forekomme forbigående forstyrrelser eller fejlvejninger, skal De fjerne vægten fra støjkilden eller slukke for støjkilden og gentage vejningen.

Dichiarazione di conformità CE

Báscula no automática pesapersona modelo seca 684

Por medio de la presente se certifica que el producto denominado anteriormente cumple las exigencias esenciales de protección fijadas en la directriz del Consejo para la adaptación de las disposiciones legales de los países miembros sobre la compatibilidad electromagnética (89/336/CEE).

Si a pesar de ello, se produjeran anomalías o malas pesadas temporales al usar la báscula en la proximidad de fuertes emisores electromagnéticos tales como p. ej. microondas, teléfonos móviles, radioteléfonos, etc., aleje la báscula de la fuente causante de las perturbaciones o desconecte esta fuente y repita la pesada.

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